

REMARKS

In the Specification:

The Office Action objected to the numbers 20 and 22 not being defined in the specification. The first paragraph of page 7 has been amended to include these reference numbers.

In the Claims:

Claims 1, 3, 5, 10 and 15-18 have been amended to better define the invention and claims 19-21 have been added.

Rejections under 35 U.S.C. § 112

Claims 1-10 and 12-18 stand rejected under 35 U.S.C. § 112 as being indefinite. Claims 1, 13, and 15 stand rejected as indefinite due to the term "predetermined." Applicant respectfully disagrees. The use of the term "predetermined" is unambiguous in the context of these claims. As the Office Action notes, the term means determined beforehand. Hence, these claims refer to the step of terminating exposure when the carbon content has fallen below a particular level. As described in the specification, this level will vary depending on the desired objective of the user. While in one example, such a level may comprise a 3% or, more preferably, about 2% as the final level, the specification makes clear that the invention does not depend on pre-selection of any particular level of carbon content.

Claim 5 stands rejected as indefinite in regard to the carbon content. Claim 5 has been amended to show that the carbon content is prior to exposure.

Claim 15 stands rejected as indefinite as to the term "its." Claim 15 has been amended to more clearly describe the claimed invention.

Rejections under 35 U.S.C. § 103(a)

Claims 1-13 and 15-18 stand rejected under 35 U.S.C. § 103(a) as obvious over Trerice in light of John. Applicant respectfully traverses. However, claims 1 and 15 have been amended to more accurately describe the claimed invention.

Trerice discloses a microwave vessel having a solid base to support ash, consisting of porous ceramic media 16. (col. 7, lines 30-50). Fly ash is fed into the vessel, presumably to rest on top of the surface of the base. Since this base is essentially monolithic (comprised of sintered glass or ceramic), there would not be any mixing of the ash and this base material. As described in the specification of the present application, this arrangement is susceptible to uncontrolled, localized heating and "clinkering" of the fly ash.


In contrast, the present invention involves use of a microwave vessel within which there has been placed a bed of particulate carbon-free (or substantially carbon-free) media which is suitable for mixing with the fly ash during processing. Claims 1 and 15 have been amended to include this feature of particulate media suitable for mixing with the fly ash. As described in the specification, this provides an improved microwave treatment of the fly ash.

Furthermore, a further distinguishing aspect is that the claims as amended state that the carbon-free material comprises a microwave-absorbing substance. In contrast, Trerice discloses a bed comprised of sintered glass or conventional ceramic material. Such material is not necessarily microwave absorbent and Trerice does not describe selection of a ceramic material which absorbs microwaves. Further, the specification describes heating of the ash by direct exposure of the ash to microwaves, which causes a temperature rise based on the carbon content of the ash, rather than any absorption of microwaves by the underlying media. This contrasts with the present invention, characterized by the use of a particulate media suitable for mixing with the ash, and in which the media is itself a microwave absorbing material. Thus, heating of the ash results both from direct exposure to microwaves and heating of the particulate material which is in intimate contact with the ash.

SUMMARY

Applicant believes the present application is now in condition for allowance. The Examiner is invited to contact the undersigned attorney for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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